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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,298	06/02/2005	Tomohisa Tenra	043890-0746	8367

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MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER	
THOMAS, ALEXANDER S	
ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
08/11/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,298	TENRA ET AL.	
	Examiner	Art Unit	
	Alexander Thomas	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-27* is/are pending in the application.

4a) Of the above claim(s) *3-7,15-17 and 20-26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-14,18,19 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on August 4, 2009 has been entered.

Claim Objections

2. Claim 26 is objected to because of the following informalities: the claim has an improper identifier; it should be labeled as being “withdrawn”. This claim is directed to species B which is a non-elected claim as set forth in the office action dated 5/4/07. The claim is also dependent upon a cancelled claim. Appropriate correction is required.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. Claims 11, 13, 14, 18 and 27 stand rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese patent document 10-110,887 Tanimoto. The reference discloses a vacuum heat insulator comprising a gas barrier envelope with a heat sealable layer 3 wherein first and second layers of the envelope (i.e. top and bottom

layers of the envelope) cover top and bottom sides of flat core members 2 and are heat-sealed around the core members, i.e. at portions where the core members are not disposed between the first and second layers of the envelope; see Figure 1 and the Abstract. The envelope is disclosed as heat sealable and therefore contains a heat sealable layer. Concerning the shape of the "border region" as defined in claim 27, the reference's product, as shown in Figure 1, has a border region shape that corresponds to the periphery of the core member. Also, see the Board of Appeals decision dated 6/4/09, page 12, first and second full paragraphs, which confirms that Tanimoto discloses the claimed border region structure. The terms "heated", "pressed" "cut off" and "cut off by melting down" used in the instant claims 2, 11, 13 and 14 are process limitations that do not add any structurally features to the final product that would distinguish it over the prior art product. Concerning claim 13, there are widths of heat sealed portions between the core pieces 2 in the product of the reference; see Figures 1 and 2.

Claim Rejections - 35 USC § 103

5. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent document 10-110887 Tanimoto in view of the Japanese patent document 08-303686 Miyoshi. The primary reference discloses the invention substantially as claimed; see the above rejection under 35 USC 102. The secondary reference discloses providing a hole through a vacuum insulation product wherein the enveloping material can be cut through after forming the product. It would have been obvious to one of ordinary skill in the art to provide a hole in the products of the primary

references in view of the teachings in the secondary reference in order to allow a tube, etc., to run through the insulation after installation.

6. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent document 10-110887 Tanimoto in view of Stroobants 6,322,743. The primary reference discloses the invention substantially as claimed; see the above rejection under 35 USC 102. The secondary reference discloses the desirability of applying heat and pressure to a vacuum insulation panel during evacuation and sealing to improve flatness; see column 2, lines 6-37. It would have been obvious to one of ordinary skill in the art to apply pressure and heat to the envelope and core of the primary reference's product in view of the teachings in the secondary reference in order to prevent wrinkles in the final product. If heat/pressure is applied to the entire laminate of the primary reference during heat sealing as suggested in the secondary reference than the envelope will become bonded to the core material as a result of its softening during heat sealing.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent document 10-110,887 Tanimoto. The reference discloses the invention substantially as claimed; see the above rejection under 35 USC 102. It would have been obvious to one of ordinary skill in the art to make the insulation product of the reference any particular size depending on the particular end use since such a modification would have involved a mere change in the size of a component and a change in size is generally recognized as being within the level of ordinary skill in the art.

Response to Arguments

8. Applicant's arguments filed August 4, 2009 have been fully considered but they are not persuasive. Applicant argues that Tanimoto does not disclose a vacuum heat insulator in which a core member is evacuated and sealed between first and second enveloping members so as to seal the entire core member between the enveloping members. However, to the contrary, the reference clearly shows two enveloping layers, namely the top and bottom layers of envelope 3, that seal the core there-between. As disclosed in the "SOLUTION" section of the abstract, each core member 2 is thermally welded between the core members 3 to entirely seal the core members between two enveloping layers so as to form independent vacuum parts. Furthermore, the Board of Appeals confirms this interpretation on page 9, paragraphs (5.) through (8.) of its decision dated 6/4/09. Since it is disclosed in the abstract that independent vacuum parts 4 are formed, it is logical to assume that each core member is entirely sealed between the enveloping layers.

Applicant further argues that Tanimoto does not disclose a border region seal formed by portions of first and second enveloping members where said core member is disposed between the two enveloping members and portions where the core member is not disposed between first and second enveloping members. This is clearly not true and the Board of Appeals decision confirms that the reference does disclose such a structure; see pages 11 through the last full paragraph on page 12 of the decision. Applicant further argues that Tanimoto does not disclose a "border region" seal having a shape that corresponds to the periphery of the core member. These arguments are not

convincing. Tanimoto clearly discloses a border seal region with the same structure as instantly claimed. See Figure 1 wherein it is shown that the two enveloping layers, namely the top and bottom layers, are heat sealed at areas between the core members resulting in a border region that corresponds to the periphery of the core member. The fact that Tanimoto's product possesses this structure is also confirmed by the Board decision at page 9 paragraphs (5.) through (8.).

Applicant further argues that Tanimoto discloses a single continuous layer outer covering around the core members edges and thus does not disclose a configuration in which first and second enveloping members seal an entire core member there between. However, this is not convincing. Tanimoto, as noted above, clearly discloses two layers of enveloping material (not a single continuous layer) heat sealed together between core members so as to enclose each core member; see Figure1 and the Abstract. This structure is exactly the same as the instantly claimed structure because the areas 13 between the core members 11 in applicant's product are heat sealed as are the areas between Tanimoto's product and therefore will inherently have the same structure. The fact that Tanimoto depicts this heat seal as a single layer in his Figure 1 and applicant depicts their heat seal as two layers in their drawings does not structurally distinguish the two structures because it is clear from the disclosure in Tanimoto that he forms his product in the same way as applicant, namely he heat seals (applies heat and pressure) the two envelope layers to seal around his core members. Therefore, the area between the individual core members of the Tanimoto product will inherently have the same structure as that of the instantly claimed product.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Thomas whose telephone number is 571-272-1502. The examiner can normally be reached on 6:30-4:00 M-THUR.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander Thomas/
Primary Examiner
Art Unit 1794